

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)

CLASS: IMSC
BRANCH: CHEMISTRY

SEMESTER: II
SESSION : SP/2019

SUBJECT : CH108 ORGANIC CHEMISTRY-I

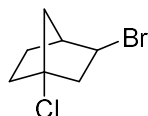
TIME: 02 HOURS

FULL MARKS: 25

INSTRUCTIONS:

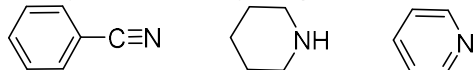
1. The total marks of the questions are 25.
 2. Candidates may attempt for all 25 marks.
 3. Before attempting the question paper, be sure that you have got the correct question paper.
 4. The missing data, if any, may be assumed suitably.
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Q1 (a) Write down the IUPAC name of the following compound. [2]



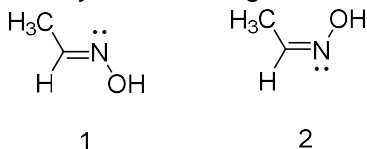
Q1 (b) What is the hybridization of central atom of NH_3 ? Discuss the molecular geometry of NH_3 . [3]

Q2 (a) Arrange the following compounds in the increasing base strength. Justify your answer. [2]



Q2 (b) Explain the fact that more substituted alkenes are more stable. Explain with examples and molecular orbital drawing. [3]

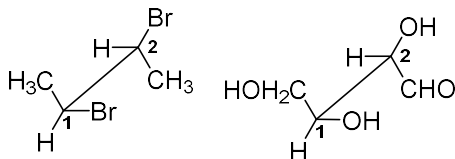
Q3 (a) Identify the E/Z configuration in the following oxime compound 1 & 2. [2]



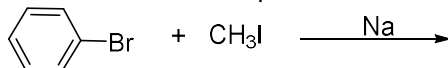
Q3 (b) Define and Distinguish between optical rotation and specific rotation. [3]

Q4 (a) Convert the following Sawhorse formula to Newman and to Fisher Projection Formula. [2]

Q4 (b) Identify and assign R/S, D/L and Erythro/Threo Isomerism using its Fisher Projection Formula. [3]



Q5 (a) Write the structure of product obtained from the following reaction. [2]



Q5 (b) Discuss E1 mechanism with suitable example. [3]